# Army Announces Proposed Plan — Seeks Public Comment

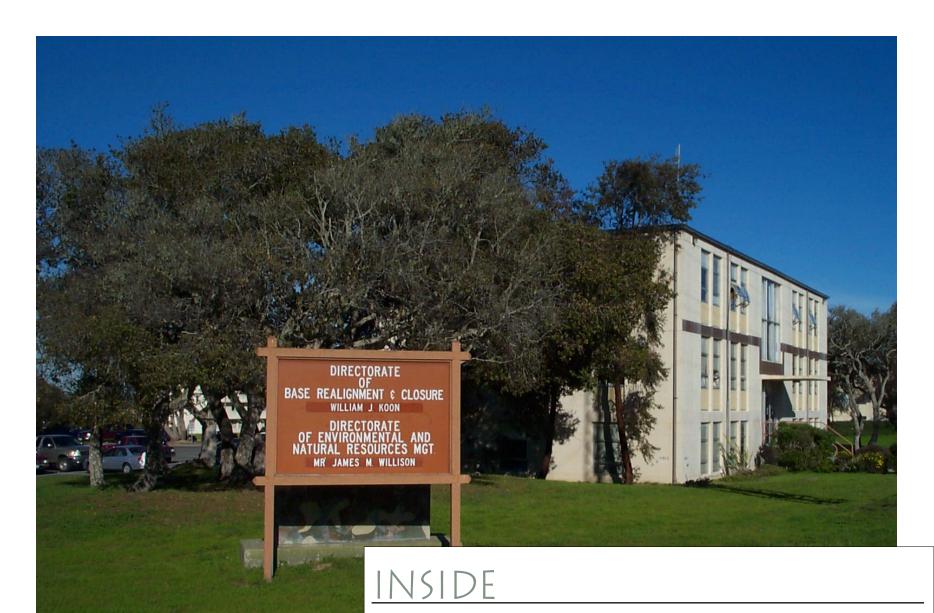


Directorate of Environmental and Natural Resources Management

March 2002

## Community Bulletin #3

# Prescribed Burns are Preferred Option for Vegetation Clearance



Para obtener una copia completa del boletin de la comunidad #3, contacte (831) 242-7383.

▶ A summary of the problem (from previous Community Bulletins)	2
▶ How the decision will be made	3
▶ How you can participate in the decision	4
▶ What alternatives were considered	6
▶ How the alternatives compared	7
▶ The preferred alternative	9
A discussion of prescribed burns	0
→ Air Emissions Study update1	2
► Temporary Relocation Program 1	4

# Some key points from prior Community Bulletins

- ▶ The Army must clean up explosives before the community can safely reuse the land. Highly explosive items cannot be safely removed unless the vegetation is first cleared so workers can see the ground where they are working.
- The Army has identified three areas—Ranges 43-48, Range 30A, and OE-16—that have high priority for cleanup. These areas were identified because the unexploded ordnance and explosives on this land are very dangerous and very sensitive. In addition, these areas are close to populated areas or roads that provide access to these areas, and there is evidence of prior trespassing.
- ▶ The land that has been identified as high priority for cleanup will largely remain as natural habitat after cleanup—the primary purpose of cleanup at the priority sites is public safety, not economic development.
- ▶ More than 8,000 acres of land where there may be unexploded ordnance and explosives is covered by Central Maritime Chaparral (a rare habitat).
- ▶ When Central Maritime Chaparral is cleared by fire, it is actually good for the natural habitat. When it is cleared by hand or mechanical means, this rare habitat doesn't fully recover.
- ▶ The Army and the U.S. Fish & Wildlife Service (the agency responsible for protecting rare and endangered species) have had an agreement since 1994 to use prescribed burns as the primary method for brush clearance on lands designated as habitat reserves and containing Central Maritime Chaparral.

#### **Public Meetings Scheduled**

The public is invited to submit comments on the Proposed Plan during two public meetings. The meeting schedule is as follows:

March 25, 2002 6:00 - 10:00 p.m. Oldemeyer Center 986 Hilby Avenue Seaside, CA

March 26, 2002 6:00 - 10:00 p.m. Spreckels Veterans Memorial Building 5<sup>th</sup> & Llano Spreckels, CA

You have a choice of going to an Open House—at the same facility during the announced times—where you can ask questions individually, or you may attend the public meeting and make comments. The public meeting consists of short presentations and a formal comment period. Comments received during the meeting (but not during the open house) will be part of the Official Record upon which the agencies will base their decision.

The public may also comment in writing or via the Fort Ord Cleanup web site (see page 4) during a 30-day public comment period that ends April 11, 2002.

The Army has issued a Proposed Plan for how it will clear vegetation and remove ordnance and explosives—some of it unexploded—on selected sites at the former Fort Ord. The sites slated for cleanup are known as Ranges 43-48, Range 30A, and OE-16. These sites were used to train soldiers in the use of live ammunition and explosives. These lands need to be cleared of explosives to protect the public. The land cannot be used for other purposes unless it is cleaned up.

Before that cleanup can occur, vegetation growing on the land must be removed to make it safe for ordnance cleanup workers to enter these areas. Unless they can see the surface of the land, there is considerable danger that cleanup workers might trigger unexploded ordnance or explosives.

The unexploded ordnance and explosives are a serious risk—some of them are sufficiently explosive to penetrate a tank and could seriously maim or kill cleanup workers or anyone trespassing on the land. Areas in and around the former firing ranges contain sensitively fuzed, highly dangerous unexploded ordnance (UXO) including high explosives such as grenades, antitank projectiles, dragon guided missiles, and mortars. These are present on the ground or near the surface.

#### **How Much Unexploded Ordnance or Explosives is on the Land?**

Some recent cleanup activities give some indication of how much ordnance and explosives may be found within the proposed cleanup areas.

In the fall of 2001, the Army did surface removal of those portions of Ranges 43-48, Range 30A, and OE-16 where there was no vegetation (such as roads, firebreaks, or unvegetated open areas immediately adjoining roads and firebreaks). Surface removal means the Army cleaned up those items that were exposed and visible on the surface. No vegetation was cut. The amounts of unexploded ordnance and explosives found were:

- ♦ Ranges 43-48 unexploded items 2,325
- ♦ Range 30A unexploded items 192
- ♦ OE-16 unexploded items 5

The primary reason for cleaning up ordnance and explosives is to reduce immediate risks to the public. Ranges 43-48, for example, are less than 4,000 feet from residential neighborhoods at the former Fort Ord (Fitch and Marshall Parks) and is near the City of Seaside. The Fitch and Martin Luther King Jr. Middle Schools are located less than a

mile from the Ranges 43-48 and OE-16 sites. In the last three years, there were several documented incidents of persons trespassing on Ranges 43-48. In 1999, there were two documented incidents of children entering the fenced area and collecting and removing 40mm practice grenades found on the surface of the land. Although no one was injured in these incidents, the Army has concluded that fences posted with warning signs deter, but do not prevent, people from trespassing on the land.

After an extended review of alternatives, the Army recommends the use of prescribed burns to clear the vegetation before it removes the ordnance and explosives. Prescribed burns are carefully controlled fires that burn off vegetation, leaving the ground exposed so

workers can see where they are walking. This reduces the chance that workers will accidentally trigger unexploded ordnance or explosives. The Army also studied other alternatives including hand cutting, mechanical cutting, and no action. While mechanical and hand cutting will remove the vegetation, both require workers to enter the land exposing the vegetation clearance workers to all the same risks that ordnance cleanup workers would be exposed to if the vegetation wasn't cleared. The No Action alternative means that no ordnance and explosives cleanup could be conducted. This would probably mean that the land would be permanently fenced, with no future land uses permitted.



#### How the Decision will be Made

In 1998, the Army began preparing a Remedial Investigation/Feasibility Study discussing the entire ordnance and explosives cleanup program for all of Fort Ord. A Remedial Investigation/Feasibility Study is the document specified in federal cleanup law (generally referred to as the "Superfund" law) that analyzes the alternatives. Once it is completed, the Army will issue a Proposed Plan that identifies the course of action that will be followed during cleanup.

Because the areas that have the highest priority for cleanup are located near schools and residential areas, the Army believes they pose an immediate threat. When areas pose an immediate threat, the Army is normally able to do the cleanup under a provision of the law that permits prompt action to protect public safety. But a recent court decision said that if the cleanup program involved prescribed burns, the Army was required to complete a Remedial Investigation/Feasibility Study before it could take such an action.

However, the Remedial Investigation/ Feasibility Study covering the entire base won't be completed until 2005 at the earliest. This means that cleanup would be delayed for several years, even though the Army knows there are occasional trespassers who are in grave danger.

Under federal law, the Army can prepare an "interim action" document that describes specific actions that can be taken pending completion of the base-wide document. So the Army has prepared an Interim Action Remedial Investigation/Feasibility Study that applies just to the highest priority cleanup areas. These areas are known as Ranges 43-48, Range 30A, and OE-16. This means that the Army's plan to use prescribed burns applies just to these three areas, taking into account the specific conditions at those areas. The Army is currently using manual or mechanical clearance, instead of prescribed burns, at other high priority areas where there is less danger that cleanup workers will trigger unexploded ordnance and where cutting is allowed under the Habitat Management Plan agreed upon with the U.S. Fish & Wildlife Service.

The Interim Action Remedial Investigation/Feasibility Study evaluated a number of alternatives and concluded that only prescribed burning, manual and mechanical cutting were feasible alternatives. By law, the Army must also consider a No Action Alternative.

In March 2002, the Army prepared a Proposed Plan. The Army concludes that prescribed burns are the best alternative for vegetation clearance on these particular parcels of land. This Community Bulletin provides a summary of the Proposed Plan, but you can obtain a copy of the full document online at <a href="https://www.FortOrdCleanup.com">www.FortOrdCleanup.com</a>, or by calling (831) 3939691.

Now that the Army has submitted its proposal, the plan will go through a 30-day agency and public comment period (see next page) before a final decision is made. After evaluating the comments from the public, the Army and the two regulatory agencies—the U.S. Environmental Protection Agency and the California Department of Toxic Substances Control—will make a final decision. This decision will be documented in a Record of Decision that will be published this coming fall. The decision, and the reasons for the decision, will also be announced in Community Bulletin #4.

#### Tell Us What You Think About The Proposed Plan

#### Here's how you can participate:



# Fill out and submit the response form on page 15.

Cut out and complete the response form on page 15. Put it in a stamped envelope and

mail it to the address shown on the form. Mail it in time to reach us by the close of the comment period, April 11, 2002.



#### Attend the public meetings.

The public is invited to submit oral or written comments on the Proposed Plan during public meetings. The meeting schedule is:

#### March 25, 2002, 6 to 10 pm

Oldemeyer Center, 986 Hilby Avenue, Seaside CA

#### March 26, 2002, 6 to 10 pm

Spreckels Veterans Memorial Building, 5th & Llano, Spreckels, CA

You have a choice of going to an Open House—at the same facility during the announced times—where you may ask questions individually, or you may attend the meeting and make comments. Comments received during the meeting (but not during the open house) will be part of the record upon which the agencies will base the decision.

Maps of the two meeting locations are provided on page 5.



# Send us a comment via our website.

Go to the Fort Ord website at www.FortOrdCleanup.com. Click on

"Proposed Plan Comments." You will see the formal comment form. Fill in your name, address and phone number (your address and phone number will be kept confidential), then type or paste in your comment in the appropriate place. (Hint: If your comment is long, you may want to compose it on your computer first, then just paste it into the form.)



#### Submit written comments.

The Army will accept written comments on the Proposed Plan during the 30-day public comment period from March 12 to April 11.

Please be sure to indicate this is a comment on the Proposed Plan.

Comments should be sent to:
Community Relations Office
Environmental and Natural Resources Management
P.O. Box 5004
Presidio of Monterey, CA 93944-5004



#### View the Administrative Record.

All records pertaining to the clean up at the Former Fort Ord are kept in the Administrative Record and several

Information Repositories where the public can view them. They are located at:

- Fort Ord Cleanup Community Relations Office, Building 4463, Gigling Road, Ord Military Community
- Seaside Library
- Ord Military Community Library
- California State University, Monterey Bay Library

Most documents are also available on the Fort Ord Cleanup Program website at www.FortOrdCleanup.com.

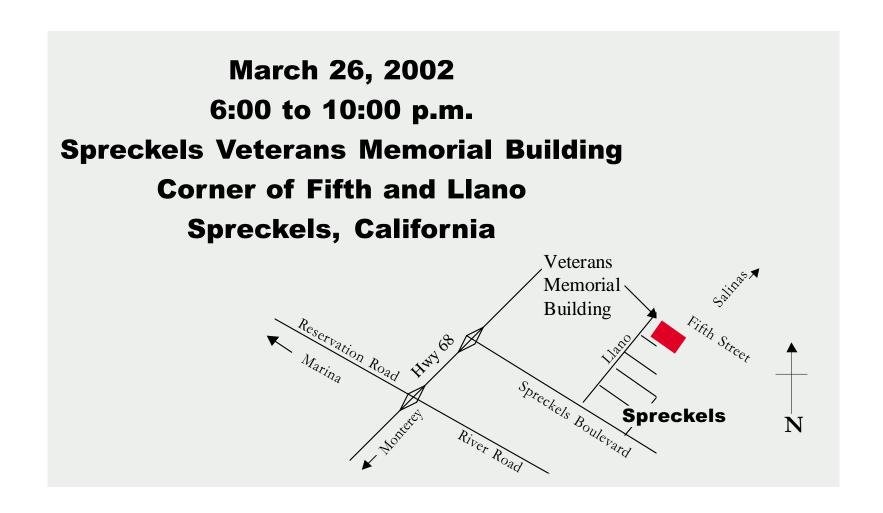


#### Questions?

Phone the Community Relations Office at (831) 393-9691 or (831) 242-7383.

# Fort Ord Environmental Cleanup Public Meetings





#### **What Alternatives Were Considered?**

## The cleanup program involves three program elements:

#### 1. Vegetation Clearance

Vegetation must first be cleared so that cleanup workers can safely conduct an ordnance and explosives cleanup.

# 2. Ordnance and Explosives Remedial Action

After vegetation is cleared, cleanup workers can safely locate and remove the ordnance and explosives.

# 3. Detonation of Unexploded Ordnance and Explosives

If unexploded ordnance or explosives are found, they must be detonated to remove the explosive hazard.

# Site OE-16 Ranges 43-48 Multi Range Area The map above shows the Multi-Range Area of the former Fort Ord that are included in the Proposed Plan.

# The Army evaluated several alternatives for each program element:

#### 1. Alternatives for Vegetation Clearance

- ♦ No Action
- ♦ Manual and Mechanical Cutting
- ♦ Prescribed Burning

#### 2. Alternatives for Ordnance and Explosives Remedial Action

- ◆ No Action Alternative—leave the land just as it is, with the existing site security measures. [The present site security measures include: four-strand barbed-wire fencing with one to two rolls of concertina wire behind it (except at OE-16 where presently there is a temporary 6-foot chain link fence with warning signs), chain link gates reinforced with concertina wire, and warning signs posted approximately every 500 feet along the fencing.]
- ◆ Enhanced Site Security—enhance site security measures by upgrading the existing fencing to 10 foot chain-link fence topped with barbed wire; posting large warning signs at a greater frequency along fencing and at access roads or gates, and increasing the frequency of patrols around the perimeters of the sites. Maintenance of fences and signs, and security patrols, would continue for many years.
- Removal of Ordnance and Explosives—remove ordnance and explosives from the land.

# 3. Alternatives for Detonation of Unexploded Ordnance and Explosives

- ◆ No Action—leave unexploded ordnance and explosives on the land.
- ♦ Detonation With Engineering Controls—applying explosive charges to individual or consolidated OE items, and covering the items with tamped dirt, sandbags, contained water, or other materials prior to detonation to reduce the blast and fragmentation, emissions, or noise that would be associated with the detonation.
- ◆ Detonation Chamber and Detonation With Engineering Controls—those items that can be safely transported would be brought to a central location where they would be detonated in a Donovan Blast Chamber; items that are unsafe to transport would be detonated in place. [The Donovan Chamber is the only type of chamber approved for use by the Department of Defense Explosives Safety Board, and is a detonation containment device capable of withstanding multiple detonations.]

#### **How Did the Alternatives Compare?**

The Army compared the alternatives for effectiveness (which includes overall protection of human health and the environment, compliance with environmental laws and regulations, long- and short-term effectiveness, and reduction of both the mobility and volume of toxins), implementability, and cost. Below is a quick comparison of the alternatives for all three program elements in the proposed plan.

	Vegetation Clearance Alternatives		
	NO ACTION	MANUAL & MECHANICAL CLEARANCE	PRESCRIBED BURNS
Effectiveness	Cleanup workers would be unable to see ordnance and explosives on the ground; cleanup cannot be done safely.	<ul> <li>Would not clear vegetation as thoroughly as burning.</li> <li>Cutting at this site could not be conducted in compliance with the applicable environmental regulations, particularly the Habitat Management Plan.</li> <li>Workers cutting vegetation would be directly exposed to unexploded ordnance and explosives.</li> </ul>	<ul> <li>Provides required surface visibility.</li> <li>Would temporarily affect air quality.</li> <li>May have impacts on human health due to smoke—however, potential health impacts would be mitigated by relocating, at Army expense, people who wish to move out of the area during the 2-3 days when burns occur.</li> </ul>
Implementability	Easy to implement because no vegetation clearance would occur.	<ul> <li>Would not be permitted under the terms of the Habitat Management Plan.</li> <li>Difficult to implement mechanical cutting in some areas of rugged terrain.</li> <li>Takes several months to clear vegetation.</li> </ul>	<ul> <li>Takes one month to coordinate burn preparation, plus 2-3 days for conducting burn.</li> <li>Regularly used in areas with similar vegetation types at Fort Ord and is the primary method approved in the Habitat Management Plan negotiated with the U.S. Fish &amp; Wildlife Service.<sup>1</sup></li> </ul>
Cost	\$0	Manual CuttingMechanical CuttingRanges 43-48: \$2.8 mil.Ranges 43-48: \$1.6 mil.Range 30A: \$2.1 millionRange 30A: \$1.2 millionOE-16: \$441,000OE-16: \$258,000	Ranges 43-48: \$1.9 million  Range 30A: \$1.5 million  OE-16: \$318,000

	Remedial Action Alternatives		
	NO ACTION	ENHANCED SITE SECURITY	SUBSURFACE REMOVAL
Effectiveness	Would not remove or reduce the risk that unexploded ordnance and explosives could be triggered by trespassers.	<ul> <li>Would not remove the risk that unexploded ordnance and explosives could be triggered by trespassers—but would make it more difficult to trespass.</li> </ul>	<ul> <li>Substantial reduction in risk to the public by removing unexploded ordnance and explosives.</li> </ul>
Implementability	Easiest to implement because it takes no further action beyond those measures already in place, such as maintaining fencing, signs and security patrols for access control.	Second easiest to implement because it primarily involves short-term construction and patrols to enhance site security.	This alternative is the most difficult to implement precisely because it is the only alternative where ordnance and explosives are actually removed. However, the Army has successfully removed ordnance and explosives at the former Fort Ord for a number of years, using readily available trained personnel and equipment.
Cost	Ranges 43-48: \$235,000 <sup>2</sup>	Ranges 43-48: \$4.5 million <sup>3</sup>	Ranges 43-48: \$10.6 - \$11.2 million <sup>4</sup>
	Range 30A: \$164,000 OE-16: \$35,000	Range 30A: \$4.2 million OE-16: \$1.8 million	Range 30A: \$6.8 – \$7.7 million OE-16: \$1.29 - \$1.3 million

<sup>&</sup>lt;sup>1</sup> There are a number of rare or endangered species that grow in the Central Maritime Chaparral habitat on Fort Ord. Under the Endangered Species Act, the U.S. Fish & Wildlife Service has the responsibility for ensuring these lands are managed to protect this habitat.

<sup>&</sup>lt;sup>2</sup> These figures include the continuing costs of security patrols and fence and sign maintenance for an interim period of 5 years until long-term O&M needs are determined in the basewide OE RI/FS.

<sup>&</sup>lt;sup>3</sup> These figures include the continuing costs of security patrols and fence and sign maintenance for an interim period of 5 years until long-term O&M needs are determined in the basewide OE RI/FS.

<sup>&</sup>lt;sup>4</sup> The range of costs is based on the estimated cost for ordnance and explosives removal at depths from 1-4 feet.

Alterna	atives for Deto	nation of Ordnance	and Explosives
	NO ACTION	<b>DETONATION</b> (with engineering controls)	DETONATION CHAMBER
Effectiveness	Would not provide a solution—once an unexploded ordnance or explosive item is found, it must be detonated to render it safe.	<ul> <li>Detonation in place removes the explosive threat immediately.</li> <li>Air emissions are not considered a significant health risk.</li> </ul>	<ul> <li>Use of a detonation chamber would require workers to handle and transport the ordnance and explosives—this could trigger the items, posing an additional safety risk to workers.</li> <li>The chamber can only be used for unexploded ordnance and explosives items that are 81mm or less in diameter and are transportable due to their relative insensitivity to handling (this is expected to be about 5-10% of unexploded ordnance and explosives on the site).</li> <li>90-95% of unexploded ordnance and explosives would have to be detonated in place using engineering controls.</li> <li>Reduces air emissions—only for those items exploded in detonation chamber.</li> </ul>
Implementability	Easy to implement—because no action is required—but leaves unexploded ordnance and explosives on the ground.	<ul> <li>Easier to implement than the Detonation Chamber alternative because there would be no need to transport the items to a detonation chamber.</li> <li>Has been implemented regularly for many years at Fort Ord, and could be successfully implemented using readily available trained personnel and equipment.</li> </ul>	<ul> <li>Significantly increases the risk to workers because of possible accidental detonation of ordnance and explosives during transport.</li> <li>Chamber can be used for only a small percentage of the unexploded ordnance and explosives expected at the site.</li> <li>The additional steps of handling, transporting and stockpiling also increase safety risks for workers.</li> </ul>
Cost	\$0	Ranges 43-48: \$1.1 million Range 30A: \$124,000 OE-16: \$13,000	Ranges 43-48: \$1.1 million Range 30A: \$136,000 OE-16: \$28,000

# **The Proposed Plan**

Based on the previous analysis, the Army proposes to:

- (1) Clear vegetation using prescribed burns;
- (2) Conduct removal of ordnance and explosives; and
- (3) Detonate ordnance in place, using appropriate engineering controls.

**Alternatives Considered** 

**Preferred Alternative** 

#### **Vegetation Clearance**

- No Action
- Manual & Mechanical Cutting



**Prescribed Burns** 

Prescribed Burns

#### **Ordnance & Explosives Remedial Action**

- No Action
- Enhanced Site Security
- Removal of Ordnance and Explosives



Removal of Ordnance and Explosives

#### **Detonation of Ordnance & Explosives**

- No Action
- Detonation in Place (with engineering controls)



Detonation Chamber/
 Detonation in Place (with engineering controls)

**Detonation in Place** 

(with engineering controls)

# Capsule Summary...

- ▶ The Army has published its Proposed Plan for cleanup of Ranges 43-48, Range 30A, and OE-16.
- ► The Proposed Plan describes three different sets of alternatives that were evaluated by the Army:
  - (1) Alternative methods for clearing vegetation so that workers can safely conduct an ordnance and explosives cleanup;
  - (2) Alternative actions that can be taken to clean up the ordnance and explosives; and
  - (3) Alternative ways to remove the explosive hazard (if unexploded ordnance and explosive items are found).
- ▶ Based on this comparison of alternatives, the Army proposes to: (1) clear vegetation using prescribed burns; (2) conduct subsurface removal of ordnance and explosives; and (3) detonate ordnance in place, using appropriate engineering controls.
- ▶ The public is invited to submit comments on the Proposed Plan during public meetings on March 25<sup>th</sup> (Seaside) and March 26<sup>th</sup> (Spreckels). The public may also comment in writing during a 30-day public comment period that ends April 11, 2002.
- After evaluating the comments from the public, the Army and the two regulatory agencies the U.S. Environmental Protection Agency and the California Department of Toxic Substances Control will make a final decision about how Ranges 43-48, Range 30A, and OE-16 will be cleaned up. This decision will be documented in a Record of Decision that will be published in the fall of 2002. The decision, and the reasons for the decision, will also be announced in Community Bulletin #4.



# Fire Chiefs Discuss Past Fires, Ability to Manage Future Fires

At the Community Symposium on November 14, 2001, leaders of several local fire-fighting organizations listened to the Army's consultants present preliminary fire management plans in the event of prescribed burns, and then discussed the challenges of managing fires on land where there is unexploded ordnance. Participants in the panel discussion were:

George Haines, Assistant Chief of Operations, California Department of Forestry and Fire Protection. Haines has been with CDF for 27 years, and currently serves as Incident Commander for CDF's Major Incident Command Team #6. Steven E. Negro, Fire Chief, Salinas Rural Fire Protection District. Negro has been Chief of Salinas Rural since 1991. He has more than 33 years experience as a fire fighter in Santa Cruz and Monterey counties.

Jack Riso, Fire Chief, Ord Military
Community Fire Department. Riso served previously as the Battalion Chief at the Naval Post Graduate School Fire
Department, and worked for the Fort Ord
Fire Department for over 20 years, rising to the position of Assistant Chief.

Jim Creighton, the symposium moderator, asked questions of the panel. Below is the panel discussion. It has been slightly edited for easier reading.

Jim Creighton, Moderator: First, would you each please describe what your responsibilities are concerning fire-fighting at Fort Ord, and what you will be looking for when the Army presents its formal fire management plan.

#### **George Haines, California Department of Forestry**

(CDF): The California Department of Forestry (CDF) has the responsibility for the property at Fort Ord that has been turned over to the Bureau of Land Management (BLM). This is done through a statewide agreement regarding CDF services. CDF is the closest wild land fire agency in the area and so it is cost effective for CDF to provide fire protection on the BLM lands. Over the years while Fort Ord has been decommissioned and the land has begun to be turned over, CDF has entered into a three-way agreement between Salinas Rural Fire Department, the old Navy Fire Department, and CDF to automatically respond to fires on the former Fort Ord. This agreement includes a preset number of resources, overhead, and personnel. In addition to daily interactions, the three agencies also meet yearly to review the plan/ agreement to update it if necessary. CDF's involvement in prescribed burns is that in the event a prescribed burn might escape or a fire begins in the BLM property and goes toward the Multi-Range Area (MRA), then all three agencies, including CDF, would interact and respond together.

**Steven Negro, Salinas Rural Fire District:** Salinas Rural is most concerned that there be a written incident action plan that the incident command will use during the operation. We will also review what resources are on-site (ground troops, engines and aircraft). We are also concerned that the plan includes an escape contingency plan [what happens if the fire escapes the initial area in which the fire was planned].

If the plan is going to involve the use of local, outside resources, we are concerned about how these local resources would be reimbursed. For example, we'd like to know how the state and local government might be reimbursed for their response. It is also key for Salinas Rural to understand the "Go, No-Go" decision. In order for us to be comfortable, we have asked Chief Riso that these things be a part of the operational burn plan.

**George Haines:** CDF is also concerned about the specific criteria for declaring an escape. For example, we'll want to know what happens when there are hot spots across the line and what resources will be on hand to handle that. This happens a lot so it is important to know what the plan is and what the decision criteria are so that they can turn to the transition plan to go into a unified command structure with the contractor, the Ord fire department, and the mutual aide departments. This is an important part of the plan that we will all like to see.

Creighton: Based on what you've heard and seen before, how would you contract with Fire Stop [the contractor Fort Ord has hired to manage the fire] to avoid problems that occurred in the past?

#### **Jack Riso, Ord Military Community Fire Chief:**

Basically, back in 1997 we had ordnance take off [ordnance exploded and sailed over the fire containment lines] and we had limited funding, staffing and equipment. Also, at that time the Army didn't involve the fire departments from the outside communities. The Army has made significant advances. This includes getting more funding, using aerial ignition and aerial suppression, adding a fire behavior analyst, using more personnel, more ground troops. This is what is needed. The Army has also

developed fuel breaks and defensible polygons. This is a more progressive program, and includes much more coordination with the other fire agencies. So far, Fire Stop has done an excellent job coordinating with all the fire agencies.

#### Creighton: What is a defensible polygon?

**Riso:** We have established fuel breaks that surround the areas that need to be cleared. Because of the types of ordnance located within the Multi Range Area we can't go into some areas, so we have established defensible polygons with fuel breaks from which it is safer to fight the fire.

#### Creighton: What other changes have been made?

**Haines:** The fire in 1997 was a real wake-up call. For example, we'd been going to training burns at Fort Ord every year. In the areas where we trained, we'd have 30 caliber shells and small arms popping off and we'd think that it seemed kind of close. But in 1997, you'd hear something that could be flying hundreds of feet through the air and probably could have taken out a tank.

That was a real wake-up call. We sat down collectively with the fire chiefs and decided that if we were going to respond to fires some changes would have to be made. There must be an area fire fighters can work from safely without quite as much risk. One of our questions that the Army still must take care of is whether the vertical range of some of the ordnance could endanger aircraft in case we have to bring in aircraft for aerial suppression. This may be a remote possibility, but Murphy's Law says that if it's going to go bad it is going to go wrong at the wrong time. For example if an aircraft is going to drop retardant, we must know what the maximum range of the shells is so we can drop the retardant safely. So there are still some unanswered questions on which we'd like to get information. After the 1997 fire, the Monterey County fire chiefs got together and came to a consensus—and this is still our position—that we will not go inside the Multi-Range impact area. We're working with the Army on the defensible polygons and trying to meet other criteria we identified as needing to be met before we'll go in there. We have not gotten the complete report on that yet. So if a fire happened inside that impact zone today, it would be a much bigger fire because the local government fire agencies would not go in there.

When I got into the fire service, we were doing controlled burns and working with ranchers and farmers. We'd go out there and look at the conditions and say: "Oh, yeah, the winds blowing ok, it's a little warm and it hasn't rained." Then we'd light the match and watch it go. So it's incredible all the technology that I've seen here today [in Fire Stop's presentation]. Everybody is trying to make sure that all the right contingencies are being addressed to keep the community and the environment from being impacted. It's really striking how incredibly different things are than just 10 years ago.

# Creighton: Are the defensible polygons the areas surrounded by firebreaks that we saw in the slides?

**Riso:** We developed the defensible polygons in the Multi-Range Area using the old fuel breaks that we already had—so that we didn't have to disturb the habitat again. The fuel breaks are what we call a "two-track." The ground is cleared down to mineral soil for a track that is about 15 feet wide. Then the vegetation is cut down on both sides.

**Negro:** In order for us to drive our fire engines out there, that ground has to be able to support 50,000 pounds. They have to remove the ordnance to a level that is sufficient for us to safely drive a 50,000-pound vehicle over the area without anything happening, or we won't go out there.

# Creighton: You won't go out there because of the unexploded ordnance?

**Negro:** Safety of our personnel is our number one priority.

**Riso:** The roads have been cleared of ordnance to a four-foot depth, but again we have all this ordnance that is lying around in the vegetation. Even though we have these defensible polygons and they have been cleared of ordnance or explosives to a four-foot depth we still have major safety concerns for the fire fighters because of the possibility of fragmentation, or a round going off. Like George said, if we have these things going up into the air, what would be the limits to protect fire fighters? So there's a lot of work to be done, because the way it is now, if there were a fire in the Multi-Range Area it would be a more devastating fire because of our inability to get in and fight fires.

Creighton: That's a question that has come up.
There is the possibility of either a natural or
accidental fire in these areas. Based on your
experience, what are the odds, if the Army
doesn't do a prescribed burn, that there will be a
fire in the Multi-Range Area?

**Riso:** There have been a couple of incidents of unexplained fires in my career at Fort Ord, and there's also a lot of unstable ordnance out there. With the increased use of Fort Ord property, like the use of South Boundary Road and Barloy Canyon for bike races and with more hiking around the area, you're increasing your risk of possible fires in the area if we don't start burning. The fire departments look at prescribed burns from a fire safety perspective, while the Army is looking at it from the perspective of ordnance cleanup. Prescribed fires work for both. We can reduce the threat of wildfire and we can clean up ordnance.

#### Follow up on Air Emissions Study

Community Bulletin #2 discussed the results of a study to determine whether a prescribed burn on land where there is unexploded ordnance or explosives is somehow different or a greater threat to human health than a prescribed burn on land where there are no explosives, such as an agricultural burn.

The study was conducted in consultation with the U.S. Environmental Protection Agency, Region IX (EPA), and the California Department of Toxic Substances Control (DTSC).

The California Air Resources Board (CARB) and the Monterey Bay Unified Air Pollution Control District (MBUAPCD) were also involved, reviewing the study and provided written comments to the Army. The CARB questioned a computer model originally used by the Army's consultants to estimate downwind concentrations of pollutants. By mutual agreement, the CARB, MBUAPCD, EPA, DTSC, and the Army decided to use a model called the Industrial Source Complex Short Term Model Version 3 (ISCST3). The model estimates the highest ground-level concentrations of pollutants downwind from the fires. The agencies agreed that the ISCST3 model would be an appropriate model for a "screening-level" evaluation. Screening-level modeling evaluation uses health-protective assumptions that would generally result in model predictions that are unlikely to be reached or exceeded in real-world conditions, even considering the modeling uncertainties.

This model uses hourly meteorological data records to define the conditions for rise, transport, and diffusion of the smoke plume. For this investigation, five years of surface meteorological data from Monterey, California were combined with regional upper air data to construct the necessary meteorological data. The model was used to simulate a ground-based prescribed burn. The model assumed a homogeneous burn rate (e.g. the fire would burn at the same rate throughout the area), and a total burn time of 6 hours. Approximately 90 acres would be consumed in each hour of the burn. Concentration estimates were modeled for all hours and for all seasons in the five-year meteorological database.

Column 1 of Table 1 shows emissions resulting from incidental detonation or burning of ordnance and explosives as a percentage of the emissions from burning vegetation alone. For example, if the figure shown were 0.1 %, this means that incidental detonation or burning contributed an amount equal to one one-thousandth of the amount put in the air by burning of the vegetation alone. The portion of Column 1 with no figures indicates those pollutants for which there is no equivalent for vegetation burning, since that substance would not be present from burning of vegetation alone.

Column 2 of Table 1 shows the highest ground level concentrations of various pollutants resulting from incidental detonation or burning of ordnance or explosives as a percentage of the screening-level, the health-protective standards set by regulatory agencies. The data in Table 1 shows that for 26 of the 38 pollutants included in this investigation, the estimates of pollutant

concentrations are substantially less than 0.1% (i.e., one one-thousandth) of the regulatory screening value. Of the other 11 pollutants, 4 are less than 1% (i.e., one one-hundredth) and 6 are more than 1% but less than 10% (i.e., one-tenth) of the regulatory screening value. Only one pollutant (cadmium) is more than 10% of the corresponding screening level, but is still well below the health-protective values.

After using the new model, the conclusion remains the same: air pollutant emissions from incidental OE detonation during a prescribed burn in Ranges 43-48 will be minor compared to emissions contributed directly by biomass burning, and will result in pollutant concentrations well below health-protective regulatory screening values.<sup>5</sup>

While the Ranges 43-48 air emissions study concludes that the additional health risks from a fire on land where there is unexploded ordnance or explosives are insignificant, the study did <u>not</u> evaluate the health risks of smoke generally. Health experts agree that there can be health effects from exposure to smoke, particularly for people with respiratory problems.

The dilemma for decision makers is that none of the feasible alternatives is without health or safety risks. Leaving the explosives in place would pose a very serious health and safety threat. The vegetation clearance alternatives involving manual or mechanical cutting—the principle alternative to prescribed burns—run very high risks that workers doing the cutting will accidentally detonate explosives, causing serious injury or death.

The Army believes that prescribed burning, followed by removal and detonation in place of any unexploded ordnance and explosives that are found, involves lower health and safety risks than the other alternatives. However, the Army has agreed to pay the costs of temporary relocation for those people who choose to leave the area during any Army prescribed burns. A brief summary of the Army's relocation program is provided on page 14 for those who may want to consider relocating if Army prescribed burns occur.

The final decision on whether prescribed burns will be used will occur after public meetings in March 2002, and publication of a Record of Decision in the Fall of 2002. The decision will be made by the Army and the two environmental regulatory agencies, the U.S. Environmental Protection Agency and the California Department of Toxic Substances Control.

<sup>&</sup>lt;sup>5</sup> The California Air Resources Board has asked the Army to do some additional sensitivity analysis to ensure the figures are accurate under a variety of circumstances. The Army is currently completing this analysis. While this could result in modifications to the figures in Table 1, these changes are unlikely to change the overall conclusions.

#### Table 1

# Incidental Detonation Emissions and Screening Levels<sup>6</sup>

AIR CONTAMINANT	ORDNANCE % OF BIOMASS EMISSIONS	AIR CONCENTRATION AS A % OF THE SCREENING LEVEL
Combustion Products and VOCS		
Carbon Monoxide	0.001%	0.0003%
Carbon Dioxide	0.001%	0.0108%
Nitrogen Oxides (as NO2)	0.010%	0.0055%
Non-Methane Hydrocarbons	0.000%	No screening level exists
Particulate Matter (< 10 microns)	0.040%	0.9042%
1,3-Butadiene	0.000%	0.0003%
n-Hexane	0.001%	0.0000%
Methyl Chloride	0.000%	0.0000%
Benzene	0.001%	0.0000%
Toulene	0.000%	0.0000%
Dioxin/Furan TEQ	1.465%	7.3357%
Metals		
Aluminum	2.366%	3.4355%
Antimony	5.383%	0.0812%
Arsenic	1.185%	0.1209%
Beryllium	45.344%	1.5602%
Cadmium	6.861%	25.8587%
Chromium	6.451%	0.3089%
Copper	8.191%	0.0337%
Lead	10.871%	0.8730%
Mercury	0.680%	0.0033%
Nickel	2.764%	0.0329%
Selenium	1.570%	0.0518%
Silver	8.745%	7.9968%
Zinc	8.164%	1.9277%
VOCs		
Vinyl Chloride		0.0000%
Tetrachloroethylene		0.0000%
Carbon Tetrachloride		0.0000%
Methylene Chloride		0.0000%
Energetics	Substance	
RDX	not present	0.0084%
HMX	in vegetation	0.0000%
PETN	alone	0.0000%
TNT	_	0.0000%
Metals		
Barium		2.7046%
Cobalt		0.0171%
		0.0171%
Manganese Molyhdenum		0.0079%
Molybdenum Titanium		0.000%
		- 111114117

<sup>&</sup>lt;sup>6</sup> Source: Technical Memorandum Air Emissions From Incidental Ordnance Detonations During A Prescribed Burn On Ranges 43-48, Former Fort Ord, California (November 9, 2001).

# Temporary Relocation Program During Prescribed Burns at the Former Fort Ord

#### How long will the burns last?

The burns will last 1-2 days maximum, but smoke may linger in the air for another day or two.

#### What does relocation mean?

If you choose, during a prescribed burn you and your family members can stay with relatives or friends or stay in a hotel or motel for 2-3 days until the smoke has blown away. The Army will pay for reasonable costs associated with this move.

#### How do I qualify for relocation?

You will need to fill out paperwork before the Army can pay relocation expenses. We'll help you fill out the forms if you call the Environmental Information Hotline at (831) 242-7383. It is best to do this BEFORE any prescribed burns that might require relocation. That way there won't be any delays in getting relocation approved. If you fill out the paperwork but then decide you don't want to relocate for a particular burn, that's OK too.

# What if I have health problems during a burn?

If it is an emergency, call 911 or your health provider directly.

# Will the Army pay for my medical expenses?

The Army has an established procedure for filing claims for legitimate medical expenses. Call the Environmental Information Hotline, 831-242-7383, for help in completing the forms.

# How will I be notified before the prescribed burn?

Once you have completed an application for relocation benefits, the Army will put you on a special notification list and will let you know when a prescribed burn is scheduled.

#### How do I move?

Normally you would use your personal transportation to move members of your household, personal belongings and any medications necessary for two or three days. If you don't have a car, ask a friend or relative to help. If this is unworkable, call the hotline so we can help you make other arrangements.

#### Where will I be relocated?

You can stay with a relative or friend or you can stay in a hotel or motel. The Army has made arrangements with some hotels or motels to pay them directly. You must obtain Army approval before you make any commitments to other hotels/motels or to pay relatives or friends. If you choose to make your own arrangements, the Army will reimburse the room rate up to federal lodging allowance (currently \$93 during tourist season) per family. If you choose to stay with relatives or friends, the Army will pay \$25.00 per night. When you stay at any place other than the Army-provided hotels/motels, you will need to pay the hotel directly.

# Which of my relocation expenses will be covered?

In general, the Army will pay or reimburse you for all reasonable costs associated with your relocation. This includes meals, lodging and transportation costs. The cost of meals and lodging is subject to federal per diem allowances that govern all federal travel. The meal and lodging costs are updated annually. Currently the maximum lodging costs the federal government will pay for in the Monterey area is \$75 (off-season) and \$93 (tourist peak season). The meals allowance is currently \$42. Children under age 12 receive 50% of the meal allowance.

# Which of my expenses will not be covered?

You will NOT be reimbursed for:

- ◆ Your rent, mortgage, or the utilities on your home during your temporary relocation, as these payments are not considered to be additional costs caused by your relocation, even though you will not be living in your home.
- ◆ The cost of temporary housing beyond the date on which your temporary relocation period ends;
- Expenses related to accidents, injuries, or illnesses that you may experience during your temporary relocation period;
- ◆ Duplicate benefits—expenses that have already been paid by someone else, such as a social welfare agency;
- Expenses for temporary housing searches; and
- Other expenses the Army has not approved.

# What happens when the prescribed burn is over?

Ordinarily the relocation benefits end two days after the prescribed burn is started, but the benefits will be extended if the Army determines that a longer stay is needed.

If you do not leave your temporary housing by the time indicated on the notice from the Army, you must pay any charges for the extra time.

#### Who do I call if I have questions?

For general questions, call the Environmental Information Hotline at (831) 242-7383.



#### Put Your Name On Our Mailing List

To receive future information about Fort Ord cleanup plans and activities, please clip and return this coupon to Community Relations Office, Environmental and Natural Resources Management, P.O. Box 5004, Presidio of Monterey, CA 93944-5004, or fax to 831-393-9188. You can also contact us via email at: cqc@redshift.com to be placed on the community relations mailing list.

(please print or type)	Special interests:
Name:	☐ Groundwater Contamination
Name.	☐ Ordnance and Explosives Cleanup
Address:	——————————————————————————————————————
City/State/Zip:	Property Transfer
	☐ Prescribed Burning
Email (optional):	——————————————————————————————————————

#### Additional Information About The Cleanup Of Fort Ord

The Army is responsible for conducting the cleanup of the former Fort Ord, but it must do so in a manner that complies with federal and state laws and under the supervision of federal and state environmental regulatory agencies. At Fort Ord, the cleanup is supervised by the U.S. Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), and the Regional Water Quality Control Board (RWQCB).

To expedite cleanup at Fort Ord, the three regulatory agencies signed an agreement with the Army about how the agencies would manage the program and the manner in which any disagreements would be settled. Under this agreement, each agency has assigned a representative to a Base Cleanup Team (BCT). This team makes the day-to-day management decisions about the cleanup program. When there are disagreements between the agencies, policy-level managers from each of the agencies meet to resolve differences.

These three regulatory agencies, whose job it is to protect public health and safety, are intimately involved with virtually all of the cleanup decision making at the site. Contacts for each of the participating agencies in Fort Ord's cleanup are listed below.

#### **U.S. Environmental Protection Agency**

# John Chesnutt Viola C BCT Member Commur 415-972-3005 Coordina

Viola Cooper Community Involvement Coordinator 415-972-3243 / 800-231-3075

California Department of Toxic Substances Control

Rizgar Ghazi BCT Member 916-255-3610

(please print or type)

Linda Janssen

Public Participation Specialist 916-255-6683

#### United States Army—Presidio of Monterey

**Gail Youngblood** BCT Member 831-242-7924 Kevin Siemann Ordnance & Explosive Program Manager 831-242-7919

**Lyle Shurtleff**Community Relations
831-393-9691

Melissa Hlebasko Community Relations Program Coordinator 831-393-1284 / 831-242-7383

California Regional Water Quality Control Board

> Grant Himebaugh BCT Member 805-542-4636

#### Fort Ord Reuse Authority

831-883-3672

#### **Information Repositories**

- ◆ Fort Ord Administrative Record
- ♦ Seaside Library
- ♦ Ord Military Community Library
- ◆ California State University, Monterey Bay Library

For assistance in finding information of interest to you please contact Tina Fischl at: 831-393-9186 or write to Community Relations, P.O. Box 5004, Presidio of Monterey, CA 93944-5004

Fort Ord Cleanup Website

www.FortOrdCleanup.com



#### How Do You Feel About The Army's Proposed Plan?

Fill in the form below. Tell us how you feel about the Army's Proposed Plan. For example: Do you support or oppose it? What are your reasons? What suggestions do you have?

Name:	Your address and phone number will be kept confidentialwe need them for identification purposesand in
City/State/Zip:	
Phone:	
Comments about the Proposed Plan:	

Mail your completed form by April 11, 2002 to:

Community Relations Office, Environmental and Natural Resources Management, P.O. Box 5004, Presidio of Monterey, CA 93944-5004

#### A Summary of What You'll Find Inside...

- ♦ There are residents in the Monterey Bay area who are concerned that smoke from fires at Fort Ord will contain dangerous pollutants. Prescribed burns will trigger some detonations of explosives, and some emissions will be released into the air. The key scientific question is: Do these additional emissions pose a threat to human health?
- ♦ Researchers addressed this issue by conducting a study on Ranges 43-48, an area with some of the most dangerous ordnance and explosives.
- Researchers compared the amounts of pollutants put into the air from a prescribed burn if Ranges 43-48 had no explosives on the land, versus a prescribed burn on Ranges 43-48 with explosives.
- However, the California Air Resources Board did not approve the computer model used by the Army's consultants to estimate downwind concentrations.
- ◆ The Army, the Air Resources Board, the Monterey Bay Unified Air Pollution Control District, the U.S. Environmental Protection Agency and the California Department of Toxic Substances Control agreed to recalculate the figures using a model called the Industrial Source Complex Short Term Model Version 3 (ISCST3). The agencies agreed that the ISCST3 would be an appropriate model for a "screening-level" evaluation.
- ♦ Based on this study, researchers conclude that air pollutant emissions from incidental OE detonation during a prescribed burn in Ranges 43 48 will be minor compared to emissions contributed directly by burning vegetation alone, and will result in pollutant concentrations well below health-protective regulatory screening values.
- The study did <u>not</u> evaluate the health risks of smoke generally. Health experts agree that there can be health effects from exposure to smoke, particularly for people with respiratory problems.
- The Army has agreed to pay the temporary relocation costs of people who choose to leave the area during any prescribed burns that might occur in the future.

#### Resumen condensado...

- ♦ Existen residentes en el área de la Bahía de Monterrey que están preocupados de que el humo de los incendios en Fort Ord contenga contaminantes peligrosos. Las quemas prescriptas provocarán algunas detonaciones de explosivos, y algunas emisiones serán despedidas en el aire. La pregunta científica clave es ¿Representan estas emisiones adicionales una amenaza para la salud humana?
- ♦ Los investigadores abordaron esta cuestión conduciendo un estudio sobre los Campos de Tiro 43-48, un área con algunos de los más peligrosos armamentos y explosivos.
- ♦ Los investigadores compararon los contaminantes despedidos en el aire de una quema prescripta si los Campos de Tiro 43-48 no tuvieran explosivos sobre el terreno, con una quema prescripta en los Campos de Tiro 43-48 con explosivos.
- ♦ Sin embargo, el Consejo de Recursos del Aire de California no aprobó el modelo computarizado utilizado por los consultores del Ejército para estimar las concentraciones en dirección del viento.
- ◆ El Ejército, el Consejo de Recursos del Aire, el Distrito Unificado de Control de Contaminación del Aire de la Bahía de Monterrey, la Agencia de Protección Ambiental de los Estados Unidos y el Departamento de Control de Substancias Tóxicas de California acordaron recalcular las cifras utilizando el modelo para la determinación de dispersión de contaminantes versión 3 (ISCST3). Las agencias estuvieron de acuerdo en que el ISCST3 sería un modelo apropiado para una evaluación a "nivel exploratorio".
- Basándose en este estudio, los investigadores concluyen que las emisiones de contaminantes en el aire provenientes de la detonación incidental de armamentos y explosivos durante una quema prescripta en los Campos de Tiro 43-48 serán menores en comparación con las emisiones causadas directamente por la quema de vegetación solamente, y resultarán en concentraciones de contaminantes muy por debajo de los valores de regulación establecidos para la protección de la salud.
- ◆ El estudio no evaluó los riesgos a la salud del humo en general. Los expertos de salud están de acuerdo en que pueden existir efectos a la salud causados por la exposición al humo, particularmente para personas con problemas respiratorios.
- ♦ El Ejército se ha comprometido a pagar los costos de traslado provisorio de la gente que elija dejar el área durante las quemas prescriptas que podrían ocurrir en el futuro.

Para obtener una copia completa del boletin de la comunidad #3, contacte (800) 852-9699.

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